



(43) International Publication Date
14 April 2005 (14.04.2005)

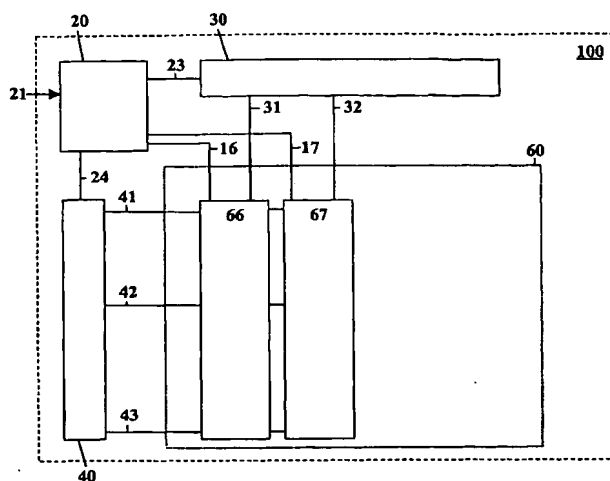
PCT

(10) International Publication Number
WO 2005/034075 A1

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| <p>(51) International Patent Classification⁷: G09G 3/34</p> <p>(21) International Application Number:
PCT/IB2004/051887</p> <p>(22) International Filing Date:
28 September 2004 (28.09.2004)</p> <p>(25) Filing Language: English</p> <p>(26) Publication Language: English</p> <p>(30) Priority Data:
60/508,496 3 October 2003 (03.10.2003) US</p> <p>(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): JOHNSON, Mark, T. [GB/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). YASUI, Masaru [JP/JP]; c/o Prof. Holstlaan</p> | <p>6, NL-5656 AA Eindhoven (NL). ZHOU, Guofu [NL/NL];
c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).</p> <p>(74) Agent: ROLFES, Johannes, G., A.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).</p> <p>(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.</p> <p>(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).</p> |
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(54) Title: ELECTROPHORETIC DISPLAY UNIT



(57) Abstract: Electrophoretic display units (100) comprising pixels (11) situated between a common electrode (6) and pixel electrodes (5) need, for shortening the total image update times, increased driving voltages across the pixels (11) which make disturbances more visible. To camouflage such disturbances, instead of one common electrode (6), different counter electrodes (16,17) coupled to different portions (66,67) of the electrophoretic display panel (60) are introduced. First and second counter electrodes (16,17) receive first and second voltage signals (V_{16} , V_{17}) like alternating voltage signals having opposite phases. First shaking data pulses ($V_{16} - V_{E1}$, $V_{16} - V_{E3}$) are supplied to the first portion (66) and second shaking data pulses ($V_{17} - V_{E2}$, $V_{17} - V_{E4}$) are supplied to the second portion (67), which first and second shaking data pulses have opposite amplitudes. Setting signals (S_1, S_2, S_3, S_4) supplied during setting frame period (F_S) reduce voltage swings at pixel electrodes (5).

WO 2005/034075 A1

**Declaration under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ,

BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

- with international search report

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